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## N°. XXXIII.

## PRIZE DISSERTATION,

which was honored with the Magellanjc Gold Medal, by the Philosophical Society  
January, 1793.

CADMUS, or a TREATISE on the ELEMENTS of  
WRITTEN LANGUAGE, illustrating, by a philoso-  
phical Division of SPEECH, the Power of each Charac-  
ter, thereby mutually fixing the Orthography and Orthoe-  
py.

CUR NESCIRE, PUDENS PRAVE, QUAM DISCERE MALO?

Hor: Ars Poet: v. 88.

With an ESSAY on the mode of teaching the DEAF, or  
SURD and consequently DUMB, to SPEAK.

PERHAPS there is no subject of which the  
generality of men are so ignorant, as the sub-  
ject of the following paper: indeed there is scarcely one  
that ignorance affects so much to despise; but, though  
unexpanded minds may not deem it worthy of a thought,  
some of the greatest philosophers have considered it of  
such importance as to claim their particular attention.  
The learned Bishop Wilkins, in his treatise on a philoso-  
phical language, informs us, that besides the famous Em-  
perors Caius Julius Cæsar, and Octavius Augustus, who  
both wrote upon this subject, Varro, Apian, Quintilian  
and Priscian bestowed much pains upon the alphabet: since  
them Erasmus, both the Scaligers, Lipsius, Salmasius, Vos-  
sius, Jacobus Matthias, Adolphus Metkerchus, Bernardus  
Malinchot, &c.—also Sir Thomas Smith, Bullokar, Alex-  
ander Gill, and Doctor Wallis†; the last of whom Wil-  
kins thinks, had considered with the greatest accuracy and  
subtlety the philosophy of articulate sounds. He also ac-  
knowledges

† I am sorry that my remoteness from any library prevents my perusing most of these au-  
thors, as I write this in *Tortola*, my native place. 1792.

knowledges his obligations to the private papers of Doctor William Holder, and Mr. Lodowick. We find in the Bishop's work a great display of ingenuity and good reason; and on this subject many excellent observations. Since him several eminent authors have engaged in the study, and have favored the world with useful remarks. Among many who have published I will particularly mention Dr. Kenrick, Thomas Sheridan, Doctor Beattie, and Doctor Franklin, some of whose judicious and forcible reasons may be seen in the dissertations of Noah Webster.

An attentive consideration of this theme has many and important objects.

We see hundreds of nations whose languages are not yet written. We see millions of children born to labour for years to acquire imperfectly, what children of good capacity would acquire perfectly in a few weeks.

We see mountains of volumes printed, and no man can produce, in the English language, a single sentence, of ten words, properly written, if in the received mode of spelling.

To reduce the languages of different nations to writing it would be necessary to invent an *Universal alphabet*, the mode of constructing and applying of which I shall only here give an idea of, as the bounds of this paper will not permit me to exemplify more than the English.

An Universal alphabet ought to contain a single distinct mark or character, as the representative of each simple sound which it is possible for the human voice and breath to utter.

No mark should represent two or three distinct sounds\*; nor should any simple sound be represented by two or three different characters†.

Language†

\* As *a* in *call*, *calm*, *came*.

† As *e*, *k*, *q*, &c.

Language appears common to nature. Almost every beast and bird and insect conveys its feelings by sounds uttered in different ways. The language of man is however the most extensive: his ideas are conveyed by words, formed either by single or connected sounds; these sounds are produced by modifications of the voice and breath. Every modification is called a letter, which, represented by a mark, and the marks known by the eye to be the representatives of the sounds, an idea is as intelligibly conveyed by the marks as by the sounds.

How much have the learned to lament the imperfect state in which human genius has yet left the alphabet! It has been the custom to consider the reduction of language to the eye as an art bordering so much on divine, as almost to surpass human invention. If we examine the ignorance, in this respect, of even the most learned men, we may with some propriety ascribe to the subject much difficulty, but, when the first sources of error are conquered, every thing appears plain and simple.

I am confident the Hebrew language was not formed before that alphabet; [the alphabet was probably the Ethiopic,] for the radicals of the Hebrew are composed each of three characters, and by permutation might form ten thousand words. These *verbs* have all eighteen flexions, and might form one hundred and eighty thousand words, which would be more comprehensive than human genius.

It is impossible that a language so mechanically and so artificially formed could be the effect of chance, it must have been formed upon the alphabet, and more especially as it is formed by three characters in all cases and not by three distinct letters or sounds; for the **ב** *beth*, **ג** *gimel*, **ד** and *daleth*, without the point, have the powers of **בגד**\*,

**גד**

\* **ד** is the Vocal of the H.

Γ and Δ; capable of forming by permutation twenty nine words, but twenty four without repeating the same character three times in a word, each containing six letters, and but *three characters*: if these characters were primarily considered as only each the representative of one letter, this reason is not valid, but the next becomes stronger, and the difficulties increase; for, to form a language of exactly three letters in every radical word, pre-supposes a perfect acquaintance with a distinct set of sounds, beside a general consent of the persons engaged in the composition of the language, and memories sufficient to retain one composed by permuting twenty two letters by three. It requires more genius to effect it without, than with characters: by an alphabet it might be the composition of one man, but is however the production of a great effort of genius, and approaches towards a philosophical language.

All the world have to lament that not only the circumnavigators of different nations, but even of the same nation, who make vocabularies of the languages they hear, are so little acquainted with the philosophy of speech, as never to write them alike: indeed the same person cannot read in his second voyage, but with difficulty, what he wrote in the preceding one, with a pronunciation intelligible to a native: yet most people are capable of repeating with tolerable correctness what they hear others pronounce immediately before, even in a different language, provided the same sounds, contained in the word be found in the language of the imitator, otherwise new sounds must be attempted, and every person is not sufficiently accurate in his observations, to perceive the effort made by the speaker when he utters such sounds, as we may observe daily in the attempts of foreigners to speak the *th* of the English θ, &c.

Shew a sentence in the Roman alphabet to an individual of each nation that makes use of these characters, and two persons cannot be found to read it alike: nor can a person who understands the powers of the letters in one language, be capable of reading a sentence in each language properly.

Most of the nations of Europe have received more or less the Roman alphabet, yet there is not one language to which it is perfectly adapted; however, although in the different languages of Europe the same sound is often represented in each by two or three characters, we find in most of them some words which contain the same character to represent the same sound; therefore the formation of an extensive, fixed alphabet, for the use of Europe, will not be so difficult, as if we could furnish no instances from the different languages, in which they all concurred to give the same sound to the same character. But this will only serve while we attempt to preserve the Roman characters, and produce as little innovation as possible in printing: were we to go as far as common sense would direct, and lay aside the Roman alphabet, which is exceedingly complex, adopting one that might be reduced to such simplicity, as to require only one fourth of the time to write the same matter, we must first fix all the sounds, by making for each language a correspondent table in distinct columns, then adapt the simplicity of the character, as much as possible, to the frequency of the sound in the different languages. The most certain mode of fixing the sounds, is by adopting in each table the simplest monosyllables in which they are found, such as are commonly pronounced alike, and are the most frequently used. The same letter or character should stand at the head of each corresponding perpendicular column, in the several tables, and the same also at the beginning of each horizontal line, thus representing

senting always the same sound, as far as these several characters can be applied. If the same sound cannot always be found in one language that a letter in another represents, this letter must not be used in the first, on any account, as it would produce confusion; for it makes part only of an universal alphabet. Such characters might however soon come into use, by adopting, with all future discoveries, the names given by the inventors, either in arts or sciences, and in whatever language. Any subsequent improvements in the arts would be more easily comprehended in writings, were the names and terms every where the same. If one nation only take this advantage one only will enjoy this benefit: but were more nations to do it, languages would in time assimilate as knowledge became more diffused by intercourse; the origin of the discoveries would be more easily traced, and all the world seem more nearly allied. Nothing indeed can be more ridiculous, than to alter a proper name, merely to make its termination more correspondent to the general laws of a language: yet in how many instances have the French, English, Germans and other nations done this! At the same time they urge the necessity of preserving an orthography which has very few traces left of the radicals, and has little more affinity with the spoken language than two different languages have with each other: thus, to read and write, and to speak the same things, are arts as different and difficult as to learn two distinct languages; for they are in general written by miserable hieroglyphics; and, it is as difficult for a person to remember that a particular written word signifies a certain vocal one, as to remember that the same word signifies a particular object. We cannot then but lament the many mispent years of our youth, and the continual exercise of cruelty which is inflicted to make them imbibe

the ignorance of their ancestors, and for ever shackle their minds with false and absurd prejudices.

Voltaire, that gilder in literature, who never wrote any thing solid upon any subject, but what may be attributed to the much injured and obscure Pere Adam, or the celebrated Durey de Morsan, gave some pieces in favor of a reformation in spelling, but did not exceed a few terminations of words, which he urged to the French Academy; they however argued for the propriety of retaining the old mode, lest they should not know the derivations of words; which are, indeed, as solely the province of antiquarians, as the derivations of customs and things; but were they really requisite to Scholars, they have only to turn to dictionaries, and sag through a few references.

Many urge the utility of the old orthography to prevent obscurity in writing, but though half a dozen words of different acceptation had the same orthography, where would be the difficulty of obtaining the meaning? for in speaking we find none, and many words in English have the same sound; for instance *beer* to drink, and *bier* to carry the dead upon; also *bear* the verb to carry, *bear* the beast, and *bare* naked, are never mistaken in conversation, the composition of the sentences conveying perfectly the distinction. If any obscurity be perceived, an alteration should be made in the words themselves, and the orthography regulated thereby: instances may be pointed out where it would be highly proper to adhere, not only to particular distinctions in the present orthography, but to conform to them in speaking— *‘If you speak like moderns, why would ye write like ante-christians?’* pronounced, *ante* not *anti*, otherwise there would be no difference between, *before* Christ, and *against* Christ.

Several of the English argue for the preservation of derivatives, but it is the last argument that ought to have been used, in delicacy to their own feelings, for none of  
their



their most learned grammarians or lexicographers, except, perhaps, James Robertson\* knew the derivation of even the commonest monosyllables, 'till John Horne Tooke cleared away all the obscurities, under which ignorance was veiled, and detected the learned absurdities of Harris, Johnson, Lord Monboddo, and many others.—James Robertson, in his Hebrew grammar, (the first edition of which was published fifty years ago) gives hints which indeed could not escape a person of much less learning and penetration than John Horne Tooke, but I would by no means infer thence, that any hints have been borrowed, because his name, I am confident, would have been mentioned.

Some of the most learned men are men of the least knowledge—take away their school learning, and they remain children. As all their consequence in life consists in their acquaintance with dead languages, they, no doubt, would condemn any attempt to lessen the dignity of such acquirements. ‘You must not alter the orthography of languages, because we cannot afterward derive the words; then all the learning we have taken so much pains to acquire will be useless.’—We must thus preserve bad spelling to render dead languages useful in its derivation, and we must learn dead languages to derive bad spelling.—i When does the lady (who speaks the most elegant language) ask the pedant whence the words are derived! He has spent two minutes in two languages to know the meaning of the word, and she has spent two minutes in one language; and where is the difference? A child must spend many years in learning dead languages, that he may know more perfectly his own.—Few acquire more than one language with its elegancies. I have known good latin scholars, in England, incapable of writing English tolerably.—i How much

\* Professor of the Oriental languages in the University of Edinburgh.

much more rational would it be, to study the English twice as long, than to study another language to obtain the English! There is scarcely one man in fifty, even among the learned, that writes every word with what is, *most erroneously*, called a correct orthography, without a lexicon, among the unlearned none, and few among well educated ladies. These difficulties depend greatly upon false spelling, because they all pronounce much more alike than they write; and that false spelling, in its origin, depended as much upon a want of knowing the alphabet, as upon the change of language for the sake of euphony. People are more ashamed of exposing bad orthography than bad writing: the only difference, however, between what the world calls bad spelling and good, is, that the first contains the blunders of the writer only, the latter contains the blunders of every body else.

Dr. Johnson, in the grammar which is prefixed to his dictionary (under letter Z,) says "*For pronunciation the best rule is, to consider those as the most elegant speakers who deviate least from the written words.*" If the Doctor, with all his learning, had heard any page of his own works read correctly, (according to the orthography) he would with difficulty, if at all, have been able to construe it, and would have been even more at a loss than foreigners are when the English speak Latin. I am sorry that the vague opinion of an established character can impose upon the generality of men, and I lament how much sooner the errors of the great are embraced than the truths of the little. The Doctor immediately after this allows "*our orthography to be formed by chance, and is yet sufficiently irregular.*" I cannot conceive by what rule the irregularity can be determined, but by its non-conformity to the speech, which would thus deny his previous assertion. "*Some reformers*" he adds, "*have endeavoured to accom-*  
*modate*

*“moderate orthography better to the pronunciation, without considering that this is to measure by a shadow, to take that for a model or standard which is changing while they apply it.”* If language change, the orthography ought also to change; but if orthography were once properly accommodated to language, even this would not be liable to change, consequently that: and it would then be considered, by all but Johnsonians, as great an impropriety to *mis-call* a written word, as now to pronounce it *properly*. *“Others,”* he says *“less absurdly indeed, but with equal unlikelihood of success, have endeavoured to proportion the number of letters to that of sounds, that every sound may have its own character, and every character a single sound. Such would be the orthography of a new language to be formed by a synod of Grammarians upon principles of science. But who can hope to prevail on nations to change their practice, and make all their old books useless? or what advantage would a new orthography procure, equivalent to the confusion and perplexity of such an alteration?”* In answering the above I will first ask the simple question *‘what is the use of writing?’* It is to exhibit to the eye the same words that are spoken to the ear: and it is impossible to do this without giving a distinct mark for every distinct sound: to deviate from this rule is to run into error. A synod of grammarians would not require a new language to accommodate true spelling to, it may be so easily accommodated to \* all languages; and if false orthography does not

\* In a tour through Scotland, I visited the Hebrides, and met with many old men who neither spoke a word of English, nor could they read a word in any language; these men repeated many of the poems ascribed to Ossian, and other ancient bards. One of these Poems I wrote with such orthography and characters, as I thought might answer to the sounds which were repeated by an old man. I afterwards read it slowly to a sensible old woman, who understood it, and the English, well enough to give me a translation; this was as regular a poem as any I have seen translated, possessing also much genius, but she often lamented the poverty of the English language, which she said was incapable of expressing the sublimity of many of the passages. It might be so, but I conceived there was another, and a more forcible reason, viz., her being more extensively acquainted with the gaelic than the English. I will here dis-

gress

not change a language, it is very improbable that correct orthography would alter, but rather serve to fix it; and to suppose the contrary is absurd. As to "*making all their old books useless*," I answer, that the Doctor, though he reasons thus, could read Chaucer and other ancient poets with sufficient facility. All good authors whose works are too voluminous or expensive, or too abstracted for new editions, would still afford ample matter for the learned and ingenious, and they would be read, with as much ease as the ancient English or French. If they were books of more general use, and worthy of new editions, they would no doubt be republished; if not, the rising generation would be much benefited by their suppression. Some of "*the advantages which a new orthography would procure*," shall be enumerated. 1st. Travellers and voyagers [Page 265.] would be enabled to give such perfect vocabularies of the languages they hear, that they would greatly facilitate all future intercourse. 2dly. Foreigners would, with the assistance of books alone, be able to learn the language in their closets, when they could not have the benefit of masters; and would be able to converse through the medium of books, which at present are of no service whatever, in learning to speak a language; and if this were to be adopted by the AMERICANS, AND NOT BY THE ENGLISH, the best English authors would be reprinted in America, and every stranger to the language *even in Europe*, who thinks it of more consequence to speak the English correctly, than to write it with the present

grefs so far as to declare, that I saw and heard more unpublished poems, of this kind, than have been printed by James Macpherson, and John Clarke (Translator of the Caledonian Bards) and have heard also some of the poems which these Gentlemen translated. Though I wrote tolerably fast, I learnt by some of my acquaintance, that the venerable old man could repeat such a variety as to keep me writing half a year. I will not attribute the intelligible manner in which I repeated the poem, entirely to the orthography and characters made use of; for my memory, as I read it soon after, aided me much, and I had not then made the subject of this treatise my study: but at present there is no language, that I can pronounce, which I cannot write intelligibly, and this may be learnt by any one in a very short time.

present errors, would purchase American editions, and would be *ashamed* to spell incorrectly, when he could acquire the mode of spelling well; for he would not be partial to difficulty, and would examine the old and new modes with more philosophy, than our blind prejudice will allow us to make the test of reason.

3d. Dialects [page 279] would be utterly destroyed, both among foreigners and peasants.

4th. Every one would write with a perfectly correct orthography [p. 279].—

5th. Children, as well as all the poorer classes of people, would learn to read in so short a time, and with so little trouble, having only to acquire the thirty letters, *that this alone ought to silence all the objections that can be brought*, and, particularly with the foregoing reasons, must be deemed more than “*equivalent to the confusion and perplexity of such an alteration.*” But, independent of what is said above, I admit neither confusion nor perplexity to be the consequences of such a change: those who were never before taught to read, could have no idea of any other method, and these who now read would find no more difficulty in the two modes, than is found in reading by any secret character. Even short-hand writers, if in practice, find no difficulty in reading words which do not contain a single common vowel: simple marks are used, and they attend not to the present absurd orthography of any word: how much more easy then to read words which contain the symbols of every sound, and especially when most of the common characters are used! besides, those whose thirst after knowledge is quenched, may hereafter amuse themselves with the books now published. I should have been astonished at the Doctor’s observations, if I had not been acquainted with his prejudices.

He gives some specimens of the reformed orthography, of Sir Thomas Smith, secretary of state to Queen Elizabeth;—of Doctor Gill, the celebrated master of Saint Paul's school in London;—of Charles Butler;—and shows that Milton was inclined to change the spelling: finally, he mentions Bishop Wilkins, as the last general reformer. The specimens however which he exhibits as a “*guide to reformers, or terror to innovators*” I am afraid will answer neither intention, being too imperfect to serve the former, and too incorrect to deter the latter; but some of the imperfections he attributes to the want of proper types; yet by these instances, we find, at so early a time, many advantages over the barbarous spelling of the present age. To examine the common-place observations, of even the generality of prosodial writers, would be too tedious a task for the author, to give any account of them, too tedious to the reader, who shall therefore be subjected to as few remarks as possible, upon what others have written on the doctrine of articulate sounds; but as Thomas Sheridan is one of the latest authors on the subject, and his pronouncing dictionary, in which he has much merit, is more generally known than any other, a few observations on different parts of his work will be indispensable.

The distinction which he\* and other grammarians make, between a *vowel* and a *consonant*, is, that the first can be uttered or pronounced by itself; the latter cannot. How harmless soever this may appear, it has been more fatal to scholars than Sylla or Charybdis were to Mariners.

If a consonant cannot be pronounced by itself, it must be part of a compound; therefore Mr. Sheridan should have made nineteen additional compounds to the † *j* and *x* in his scheme of the alphabet -- yet, he says ‡ “there are “*twenty eight simple sounds* in our tongue; *six of which*  
*however,*

\* See his dictionary.

† Page 1st of his prosodial grammar.

‡ Page 1X. Id.

“*however, are mutes:*” *b* he says, is no letter—I think he might have classed it with his mutes; at the idea of speaking and hearing of which, reason revolts —If *b* be rejected as a letter, merely because it is a mark of aspiration, the *k, p, t* and *o* ought as well to be omitted, because they are only marks of aspiration: *r, f, θ, s* are also aspirates, but more forcibly made than the former. If a letter be not necessary to mark the simplest aspirate, there is no difference between *heating* a cake and *eating* it; but if even a dot be necessary to mark it, and if in every other instance that dot have the same signification, it would be as much a letter as any other character; for every mark which is pronounced, distinguishing thereby one word from another, is really a letter, because, it subjects to the eye what the ear requires of the voice.—I do not however consider accents, of which the French and some other nations are so liberal, as letters, but as notes by which the high sound of particular letters may be directed.

He makes nine vowels—but there does not appear to be any difference between the sound of his second *a*, as in *hate*, and his first *e* as in *bet*, except in length; for, substitute the last for the first, and the word *bet* will make by prolongation *heet*, written at present *hate*.—His third *e* as in *beer*, appears to be precisely the first *i* as in *fit*, for by lengthening the *i* in *fit* we make *fiit*, written *feet*; (*beer, biar; beet, biit,*) nor can we make it otherwise.

He follows the Scotch mode of naming the consonants, by placing before each a common vowel, instead of adopting the *more irrational* plan of the English, who sometimes put the vowel before, and sometimes after the character to give it a *name*: but here is the rock of error, upon which all grammarians have struck, who have attempted to give a rational account of the formation of lan-

guage. The Hebrews and Greeks led Europe into this mistake, which prejudice since has taken great care to preserve. The Phenicians, and after them the Hebrews, not distinguishing sufficiently the simple formation of the elements, adopted words which began with the sounds, without considering, in some instances, any relation that the sound has with the object. Thus  $\times$  begins the name of the ox, which is *alpha* in the Phenician (and  $\aleph$  aleph in the Hebrew) hence the Greek name *alpha*, when Cadmus introduced letters into Greece.—The *B* being the first letter of the voice of the sheep, was represented among the Egyptians, by a Hieroglyphick in the form of a sheep. The \* NAMES of the letters, instead of the POWERS, have been hitherto invariably studied; we conceive them therefore, not to be simple sounds, and hence the ridiculous division of the alphabet into vowels; consonants; mutes, pure and impure; semivowels and their numerous subdivisions.

The characters ought all to be divided into two classes; VOWELS and ASPIRATES.

A vowel is a letter that is sounded by the voice,† whence its name. An aspirate is a letter that cannot be sounded but by the breath. Of the former there are twenty one in the English Language; of the latter nine, making thirty letters.

*The*

\* I have been asked how we shall be able to spell words to each other, without naming the letters.—It would be thought ridiculous to ask the names of the words that compose a sentence, but the questions are exactly parallel, or of one form; by this mode the mere pronouncing of the word slowly is sufficient, and there is no other spelling; thus a child, that reads the letters, reads words composed of them, as he reads sentences composed of words. If I were to teach a child, not by affinity of sound or reason, but by mere repetition, to call the letter *s* seven, the *e* ten, and the *x* six, to spell the word *sex*, it would be deemed very irrational, but it is much less so, than the mode by which most of the words in the English language are taught;—for instance, *double-u*—*ayt/b*—*ai*—*see*—*ayt/b*, are to be hammered, by name, into a child's head to produce the word *which*! Oh, cruelty, ignorance, and loss of time!—(See ☉ table of sounds line 13.)

† Speaking is rendering ideas audible by the voice; *whispering* is rendering them audible by the breath; and a person cannot therefore, with propriety, be said to speak in a whisper. Voice is derived from *vox* a sound, but we have fixed the idea to a certain class of sounds, otherwise it would be as proper to call any sound whatever, *voice*, as to call by that name the particular sounds uttered by the human organs of speech.——



*The Characters.*

Common						nasal		flopt		fibilant		short											
Α	Π	Α	Ε	Ι	Ο	Υ	Ζ	Ρ	Λ	Ψ	Ω	Μ	Ν	Ξ	Γ	Β	Δ	Γ	Β	Δ	Γ	Β	Δ
Vowels												Aspirates											
α π α ε ι ο υ ζ ρ λ ψ ω μ ν ξ γ β δ γ β δ γ β δ ο η																							

*The following characters are particularly recommended.*

Α Π Α Ε Ι Ο Υ Ζ Ρ Λ Ψ Ω Μ Ν Ξ Γ Β Δ Γ Β Δ Γ Β Δ Γ Β Δ Ο Η

It were much to be wished that one set of characters be used instead of capitals and small letters, for they only increase the difficulty of finding a sufficient number of easy forms, for an universal, or even a copious alphabet. The same letters made larger at the beginning of an emphatic word, or the whole made a larger size, or in Italics, would be sufficiently characteristic. The printing letters, as in the third line of characters, above, neither ascending nor descending out of the line, would render books, printed in this type, the most beautiful that ever yet appeared, and the lines would be more distinct.

The written characters may be accommodated to the others by degrees; at present I shall make little innovation in them.

	Pronounced like,					as in	herd,
<i>o</i>	-	-	-	e	-	-	law
<i>u</i>	-	-	-	a	-	-	rat
<i>a</i>	-	-	-	e	-	-	red
<i>e</i>	-	-	-	i	-	-	fit
<i>i</i>	-	-	-	o	-	-	fog
<i>o</i>	-	-	-	o	-	-	fool
<i>u</i>	-	-	-	y	-	-	ye
<i>y</i>	-	-	-	z	-	-	zeal
<i>z</i>	-	-	-	r	-	-	red
<i>r</i>	-	-	-	l	-	-	let
<i>l</i>	-	-	-	g	-	-	judge
<i>j</i>	-	-	-	v	-	-	vast
<i>v</i>	-	-	-	th	-	-	that
<i>th</i>	-	-	-	w	-	-	wolf
<i>w</i>	-	-	-	m	-	-	met
<i>m</i>	-	-	-	n	-	-	nap
<i>n</i>	-	-	-	ng	-	-	king
<i>ng</i>	-	-	-	g	-	-	get
<i>g</i>	-	-	-	b	-	-	bat
<i>b</i>	-	-	-	d	-	-	dim
<i>d</i>	-	-	-	sh	-	-	ship
<i>sh</i>	-	-	-	f	-	-	fit
<i>f</i>	-	-	-	th	-	-	thin
<i>th</i>	-	-	-	f	-	-	set
<i>s</i>	-	-	-	k	-	-	kiss
<i>s</i>	-	-	-	p	-	-	pen
<i>k</i>	-	-	-	t	-	-	ten
<i>pe</i>	-	-	-	wh	-	-	when
<i>t</i>	-	-	-	h	-	-	bat
<i>o</i>	-	-	-				
<i>h</i>	-	-	-				

Rules for pronouncing \* these letters, † shewing the formation of each distinct sound, in the English language, to which it is thought necessary to appropriate a character; *having a true knowledge of which, it will be impossible to write incorrectly whatever is heard in any language, containing only these letters; and as impossible to read incorrectly any language written in these characters*; for, by this method, the orthography and orthoepy determine each other; and, if the orthography of language were to be corrected, the pronunciation of the scholar, would, by reading alone, be perfectly attained by the peasant and the foreigner; destroying thus, *in the most effectual manner*, all vulgar and local dialects, and fitting even for oratory, every man of good capacity and utterance.

The reader is now to reject all prejudices respecting NAMES of letters, and is to study only their POWERS, which *in all cases may be prolonged*, except in the stopt vocals and their aspirates; and a good mode of obtaining precisely the true power of each, is, to transpose the letter to the end of any word which that letter begins, then, by repeating the word rapidly, the letter will take its proper place, and the ear will determine if it possesses the true sound.

### Pronunciation

\* Though it is said Pronunciation is such *quæ nec scribitur, nec pingitur, nec aurire eam fas est, nisi vivâ voce.*

† It will be observed in the line which I so particularly recommend, that some of the letters have been a little altered to render them more simple, and that some of the Characters are merely common letters reversed. The middle line of the A of the E and F have been omitted which will render them more easy for the type-founder, and less liable to blot in printing. The V and f are the A and J inverted, the I is the E reversed. The long S (f) should be totally omitted, it has so much the appearance of f. The Ð is the same as the Saxon, but rather more distinct: the Θ of the Greeks is also a little altered in the printing letters. The ☉, of the Goths, may be somewhat altered in *writing* for the sake of expedition. UWMN are made like the small letters, u being the inverse only of n, and u of m, filling the line with great beauty, and avoiding disagreeable angles.

*Pronunciation of the Letters*

## I

Is made by opening the mouth a very little, just sufficient to shew the edges of the upper teeth, producing a *vocal* sound low down in the throat, and suffering the tongue and lips to remain at rest, the epiglottis only being raised by the breath, which by a contraction of the glottis, by the surrounding muscles, occasions a tremulous motion and sound called voice, that can be felt by applying the fingers to the throat; but this tremulous motion can only be felt when vocals are sounded, so that those who are born deaf, may be made sensible of the difference, by feeling only, and can thus discover, when they are learning the elements of speech, whether or not they pronounce properly. The English *h* is the aspirate of this vocal: it is a vowel much used in that language, taking the place of *o* very often when short, but it was not represented by a character.—Its power may be found in the first perpendicular column of the succeeding table in *sun*, SʌN; *ruff*, RʌF; &c.

## II

To pronounce the second common vowel, the mouth must be more open than for I, but the lower lip must not discover the lower teeth: the sound is made in the throat, more easily continued, and is fuller than in pronouncing I, and the tongue is drawn back, the tip of it resting on the bottom of the mouth. It is also a very common vowel in the English language, though there was no character

assigned

assigned to it. The power of  $\pi$  may be found in the second perpendicular column of the table of sounds, in *yaw*,  $\gamma\pi\pi$ ;—*saw*,  $s\pi\pi$ ;—*raw*,  $r\pi\pi$ ; &c.—

## a

The third common vowel: the mouth must be still more open than for  $\pi$  the lower lip descends a little below the tips of the under teeth; and the tongue must lie flat. Its power may be found in the third perpendicular column in the words, *YARN*;—*ZAG*;—*SAT*;—*RAT* &c.

## e

The fourth common vowel—The mouth a little more shut than for *a*, but the lower lip exposing still more the lower teeth, and the tip of the tongue gently pressing the under teeth. Its power may be found in the fourth perpendicular column of the table, in, *yell*,  $\gamma e l$ ;—*zephyr*,  $z e f \tau r$ ;—*SET*;—*RED*, &c.

## i

Fifth common vowel—the mouth rather more contracted than for *e*, but the under lip so low as to shew the infertion of the lower teeth; the corners of the mouth a little extended; the tongue pressing gently upon the edges of the lower teeth. Its power may be found in the fifth perpendicular column, in, *ye*,  $\gamma i$ ;—*zeal*,  $z i i l$ ;—*SIT*;—*RIP*, &c.

## o

Sixth common vowel—the mouth is nearly in a natural state, the lips brought rather closer together—the tongue drawn back a little, and the sound resembles the  $\pi$ , but

the *o* is made more in the mouth than in the throat. The Greeks use two characters for this sound, though really one is only longer than the other, and the original intention was good, because the long sound was denoted by the same character being marked twice (oo ω), and it ought not to have been admitted as a new letter, as it indicates thereby, not a continuance, but a difference, of sound. The ancient Greeks, as mentioned by Plato, made no distinction in the long and short *O* (called now the *great* and *little o*) nor in the long and short *E* as may be seen in the word \*ΣΤΡΑΤΕΡΟΝ written at present ΣΤΡΑΤΗΡΩΝ. The power of *o* may be found in the sixth perpendicular column in the words, yoke, YOOK;---zone, ZOON;---sot;---ROT, &c.

## u

Seventh common vowel: the organs are continued in the same position as in pronouncing *o*, except that the lips are so much contracted as to leave only a very narrow aperture, and are much protruded.—*u* is pronounced in the same manner as the Greek υ. Its power may be found in the seventh perpendicular column of the table of sounds, in the words, yew, YUU;---zeugma, ZUUGMA;—soup, SUUP;—root, RUUT; &c.

## y

The eighth vocal sound, is pronounced in the same manner as the fifth common vocal *i*, except that *y* requires a more forcible effort of voice, and the back part of the tongue rises a little, to intercept the sound, which thus becomes tremulous. It is the vocal of the German *th*, and of the *gh* of the Gaelic, Scotch, &c.—Its power is found in the first horizontal line of the table of sounds, in the words, yawn, YAWN;—yarn, YARN;—yell, YEL; &c.

Ninth

\* Parkhurst's Lexicon of the New-Testament (H.)

## Z

Ninth vocal—The lips are sufficiently open to shew part of the upper and under teeth, which are nearly shut, and the edges perpendicular: the tip of the tongue is placed gently against the roof of the mouth, near the insertion of the upper teeth; the corners of the mouth a little drawn up, and a tremulous vocal sound produced; the power of which is exhibited in the second horizontal line, in the words, ZAG;---zephyr, ZEFIR;---zeal, ZIL; &c —It is the vocal of the aspirate S.

## r

Tenth vocal—the mouth a little open—the tongue raised so near to the roof of the mouth, that the voice cannot pass between them without occasioning a rapid vibration or tremor of the tongue. The sound imitates the snarling of a dog. The aspirate of *r* is not in the English language, but in pronouncing gives the same tremulous motion to the tongue, and imitates the flight of the partridge and some other birds: this aspirate is however in the Russian language, though it has no letter or character. The power of *r* may be found in the fourth horizontal line of the table of sounds, in the words, ruff, RUF;—raw, R□□;—RAT;—RED, &c.

## l.

Eleventh vocal—the mouth a little open; the tip of the tongue touching the roof of the mouth, and the sound issuing by its sides. It is very simple, requiring little effort, and is similar to *n*, except that the sound of the latter passes by the nose. The power of *l* may be found in the fifth horizontal line of the table of sounds, in the words, lump, LUMP;—law, L□□;—laf, LAS;—LET, &c.

## j

Twelfth vocal—the middle of the tongue a little raised; the teeth brought nearly together; the ends of the under lip raised, the aperture of the mouth becoming thereby more circular. This is the true French *j*, and is the vocal of the aspirate */h* (page 287,) expressed by one character, which is the *j* inverted. The power of *j* may be found in the sixth horizontal line of the table of sounds, in the words, *majesty*, *MADJUSTI*;—*treasure*, *TREJIR*;—*zeizure*, *SHJIR*; &c.

## v

Thirteenth vocal—The edges of the upper teeth, which are discernable, are placed upon the lower lip; the tip of the tongue nearly touches the under teeth, and a vocal sound is made, the power of which may be found in the eighth horizontal line of the table of sounds in the words, *very*, *VJRI*;—*vaunt* *VEENT*;—*vast*;—*vain*, *VEEN*, &c. This is the vocal of the aspirate *f*. Some of the ancient latin monuments shew that the *b* has often been put for the *v* by confounding the sounds, and thereby confounding the sense of the word; as in *acerbus* for *acervus*, and *veneficium* for *beneficium*.—The English in the time of Chaucer, wrote *saff*, *saaf*, for *save* or *except*; and in the reign of Queen Elizabeth the *f* was written for the *v*, as may be seen in Spencer *safe* pro *save*. The Spaniards, even now in the most polite companies, often confound them.

## ð

Fourteenth vocal—the mouth is a little opened, so that the tip of the tongue touches the edges of the upper teeth, and scarcely rests upon the under teeth. Though some old English authors give this as the vocal of *o*, it is not  
thus



thus used among the Saxons; for *ðorn* is pronounced *thorn* with two aspirates; thus also they pronounce *ðau* (dew)—*ðun* (to do)—*ðeil* (a part), &c. I however adopt it as the vocal of *ø*, and exhibit its power in the tenth horizontal line of the table of sounds, in the words, *the*, *ðɛ*;--*that*, *ðat*;--*them* *ðem*; &c. People who lisp make use of this sound in all cases instead of *z*.

## w

Fifteenth vocal—The organs the same as in pronouncing the *u* except that the lips are a little more protruded and contracted; the air is also forced into the mouth with more strength, and not being permitted to escape with such facility, a hollower sound is produced, and if pronounced very full, the cheeks are a little expanded, and the voice becomes somewhat tremulous. This is the true vocal of the Gothic aspirate *o* (p. 291.) represented in modern English by *wh*, but more properly in ancient English by *hw*. *W* is so seldom used in the English language, that I had doubts whether I should admit it, or substitute the *u*, as it is only necessary in cases where the *sound* of the *u* follows. It is not however what Mr. Sheridan supposed—viz. the French \**ou* as in *oui*; for these make the simple *u* as in *blue*, *blu*;—Its power will be found in the twelfth horizontal line of the table of sounds, in the words, *wolf*, *wulf*;--*wool*, *wul*;--*would*, *wuuld*.

## m

Sixteenth vocal---The lips are shut---the sound consequently passes through the nose, and this is therefore called a nasal vowel---by some *mugitus*, from its resembling the lowing of cattle.---Its power is found in the fourteenth

\* Profod : Gram : xiv.---

teenth horizontal line of the table of sounds, in the words, *muff*,  $m\text{UF}$  ;--*maw*,  $m\text{UW}$  ;---*mas*,  $m\text{AS}$  ; &c.

## n

Seventeenth vocal : the mouth is a little open ; the tip of the tongue raised to the roof of the mouth, and the sound passes through the nose ; this is therefore another nasal vowel.---Its power may be found in the fifteenth horizontal line of the table of sounds, in the words *nut*,  $n\text{UT}$  ;--*naught*,  $n\text{UW}\text{U}\text{T}$  ;--*nap*,  $n\text{AP}$  ;--*neck*,  $n\text{EK}$  ; &c.

## n

Eighteenth vocal : the mouth remains open as in the last (*n*) the tip of the tongue is drawn back, the middle being raised to the back of the mouth, and preventing the sound from issuing but by the nose. This is therefore the third nasal vowel. This sound is very common in the English language, though there was no appropriated character, but it was generally expressed by *ng* as in *longing*, or by *n* as in *longer*. Its true power may be found in the sixteenth horizontal line of the table of sounds, in the words, *tongues*,  $t\text{UW}\text{Z}$  ;--*hang*,  $h\text{AW}$  ;--*length*,  $l\text{UW}\text{O}$ , &c.

## g

The nineteenth vocal---the mouth remains as in the two last, but the tip of the tongue is a little raised by the dilatation of the tongue behind, which stops the sound entirely,\* till the lungs have made such a vocal effort as to force the air between the tongue and the back part of the roof of the mouth, at which time the *g* ceases, and, by opening

\* When the voice, by passing the Glottis, has filled the Cavity with air between that and the part pressed by the middle of the tongue, the sound ceases or stops, and cannot be continued as in other vowels ; therefore I have called this a stopt vocal. Of similar formation are *b* and *d*, therefore of the same denomination. These three vowels can also be pronounced intelligibly, although the mouth and nose should both be stopt.

opening the passage and strongly aspirating, the *k* is heard. The modern Greeks even put the last for the first---the ancient Greeks wrote ΑΓΡΥΠΤΟΣ the modern ΑΚΡΥΠΤΟΣ.---The power of the *g* may be found in the seventeenth horizontal line of the table of sounds, in the words, *gun*, ΓΥΝ;---*gall*, ΓΑΛ;---*GAP*;---*GET*, &c.

## b

Twentieth vocal---the lips must be shut, and a vocal sound made, which must not pass through the nose, but have a determination to the lips: it is there stopt, but when the lips open the vocal ceases, and an effort of breath terminates in the *p*, its aspirate.† The power of *b*, may be found in the nineteenth horizontal line of the table of sounds, in the words, *but*, ΒΥΤ;---*ball*, ΒΑΛ;---*BAT*;---*BET*, &c.

## d

Twenty-first vocal---the tip of the tongue is raised to the roof of the mouth, which is a little open---the sound is also stopt, and the moment it ceases as a vocal, by opening the passage to the breath and aspiring strongly, the *t* is produced, which is its aspirate. The power of *d* may be found in the twenty-first horizontal line of the table of sounds, in the words, *dull*, ΔΥΛ;---*daub*, ΔΑΥΒ;---*DARK*;---*debt*, ΔΕΤ;---&c.

## r

Twenty-second letter, and first aspirate---This is formed exactly in the same manner as the letter *j*, only it is an aspirate, and *j* is its vocal. The sound is very common in the

† The *b* is often put for the *p*, and *vice versa*, by the Spanish, the Germans, the Welsh and other Moderns, as well as formerly by the Armenians and other Orientals; and by the Romans for *v*.

the English language, but there was no particular letter to express it, being represented in a strangely inconsistent manner by *sh* as in *shell*, *ſEL* ;---by *ſs*, as in *assurance*, *AſſURANS* ; by *s*, as in *Asia*, *AſIA* ; by *\*ti*, as in *nation*, *NEETIEN* ; by *ch*, as in *pinch*, *PINTI* ;---by *ci*, as in *suspicion* *SUSPICION* ;---by *ce*, as in *Ocean*, *OCIEN* ;---and its vocal *j* is also absurdly represented by *s*, as in *treasure* ; *z* as in *seizure* ; *g* as in *lodge* ; (table of sounds) *ſi*, as in *conclusion*, *perſuaſion* ; and where the *j* is written, it is always pronounced wrong, being ever preceded in pronunciation by *d*. Erroneous applications of this sound are made by the English in many instances, in several languages, not only in living ones, but even in the latin.—The letter *r* is very common in the Russian, and is thus made *ѣ* : The French substitute *ch* ; the Germans *ſch* ; and the Italians *ſc* before *e* and *i*.---It is, as well as the three following, called a *ſibilant* aspirate ; because the breath, paſſing forcibly, makes a hisſing. This letter is the *𐤠* (ſhin) of the Phenicians and Hebrews ; and is the aspirate of *jaddi*.---It is also the *ſjin* of the Arabians. The power of *r* may be found in the seventh horizontal line of the table of sounds, in the words, *ſhut*, *ſIT* ;---*ſhawl*, *ſHEL* ;---*ſhall*, *ſAL* ;---*ſhell*, *ſEL* ; &c.

## f

Twenty-third letter, and second aspirate. Let the organs be diſpoſed exactly in the ſame manner as in forming the vocal *v*, and by aspiration only, the *f* will be produced. The latins called this the *digamma æolicum* on account of its figure (*Ϝ*) which now forms the (*F*) ; and, being inverted in the time of Claudius to ſignify the *v*, which is its vocal, (as in *DIſſAI*, *AMPLIſſIT*) it appears that the Romans, though well acquainted with the affinity, made

a

\* Moſt of the words that now terminate in *ſion* formerly ended in *ſion*, as may be ſeen in all the writings of Chaucer.

a proper distinction between their powers. The true sound of *f* commences the words, *fun*, FƎN;—*fall*, FƎƎL;—*FAT*;—*fame* FEEM; &c. in the ninth horizontal line of the table of powers.

Θ

Twenty-fourth letter, and third aspirate—The tip of the tongue is placed against the points of the upper teeth, exactly in the same manner as in pronouncing its vocal *ð*; but this is only an aspirate, yet strong, and of the sibilant or hissing kind, imitating exactly the hissing of a goose. The English assert this to be the sound of the Greek *theta*, but no nation agrees with them, and but few individuals, among whom however is Erasmus. They may be condemned by some for not adopting the general error, for it is certainly an error to give two sounds to one character; and though many grammarians conceive it, in the Greek, to be a strongly aspirate *T* only, distinguished thereby from the more gently aspirated *tau*, they will find it on examination to be *th*, for ΘΕΟΣ written *heost* and pronounced rapidly will produce *theos*.—People who lisp make use of this sound in all instances where the *s* ought to be pronounced (see *ð*). The power of *θ* may be found in the eleventh horizontal line of the table of sounds in the words *third*, ΘƎRD;—*thaw*, ΘƎƎ; *thank*, ΘADK;—*thane*, ΘEEN; &c.

S

Twenty-fifth letter, and fourth aspirate—The tip of the tongue must be raised to the roof of the mouth, near the insertion of the teeth, as in pronouncing its vocal *z*, but it must be pressed harder, and a forcible aspiration producing a hissing sound will form the *s*; the power of which may be found in the third horizontal line of the table of sounds, in the words, *fun*, SƎN;—*saw*, SƎƎ;—*SAR*; &c.

## k

Twenty-sixth letter, and fifth aspirate---The middle of the tongue must be pressed against the back part of the roof of the mouth, as in forming its stopt vocal *g*. It requires only a slight, but sudden effort of, breath, as the passage opens from the stoppage necessary to form the *g*; and whenever *g* is pronounced, without being joined by another letter, the *k* is unavoidably formed as soon as the *g* ceases, and the tongue leaves its position.---*k* is to be always substituted for the *q* now in use, also the *x* when it has the sound of *k*, (for it has often the sound of *gz*;) and for the hard *c* which I reject entirely, for *c* is taken from the Greek *κ*, and this is from the Hebrew (Samech) *ס*, reversed, when the mode of writing from the right to the left hand was changed to the contrary. The *c* is therefore as often used for *s* as for *k*, as in peace, ΠΙΣ; canker, ΚΑΝ-ΚΙΤ, besides having the sound of *r* as in, special, ΣΠΕΚΑΛ. It was also used by the Latins for, *g*, as in, neglecta, for neglecta; and for *q* when short, as, cotidie for quotidie, as may be seen in Terence: and it was thought proper not to admit it here, lest custom might continue to support error. The power of *K* may be found in the eighteenth horizontal line of the table of sounds, in the words, come, ΚΑΜ;—call, ΚΑΛ;—calm, ΚΑΑΜ;—came, ΚΕΕΜ; &c.

## p

Twenty-seventh letter, and sixth aspirate. The lips must be closed as in pronouncing its stopt vocal *b*, and by simply breathing with a small effort, on opening the lips this aspirate will be produced. It has the same affinity with *b* that *k* has with *g*, and is also formed in the same manner after the termination of *b*. Its power may be found in the twentieth horizontal line of the table of sounds, in the words, puff, ΠΙΦ;—pall, ΠΑΛ;—PAN;—PEG, &c.

Twenty-

## t

Twenty-eighth letter, and seventh aspirate. The tip of the tongue is placed at the roof of the mouth, near the insertion of the teeth, as in pronouncing its vocal *d*. A slight effort of breath only is requisite to form this aspirate, which has the same affinity with its vocal, that the two preceding have with theirs, and after the termination of *d*, will always be formed in like manner. These three are called short aspirates, on account of the impossibility of continuing them. The *t* has not only been frequently substituted for *d* by the Germans and some other nations, but by the Romans themselves, as in, *set*, for *fed*; and *aput* for *apud*, which are common in Terence. The power of *t* may be found in the twenty-second horizontal line of the table of sounds, in, *tun*, TUN;—*talk*, TALK;—*TAN*;—*TEN*; &c.

## o

Twenty-ninth letter, and eighth aspirate. This is the aspirate of the *w*, the lips requiring only to be placed in the same position, and a moderately strong breath given, as if going to whistle. This aspirate is common in the English, though it had no character. It is the *hw* of the Goths, and words written in the old Saxon were with *hw*, which the English have erroneously and affectedly changed into *wh*.—Its power may be found in the thirteenth horizontal line of the table of sounds, in the words, *what*, OHT;—*while*, OAIL;—*when*, OEN;—*which*, OIT;—

## h

Thirtieth letter, and ninth aspirate---The mouth must be a little opened, without any particular effort, and by breathing a little more forcibly and suddenly than common, the *h*, the aspirate of *a* will be produced.--This is the most simple aspirate. Its power may be found in the twenty third horizontal line of the table of sounds, in the words *hut*, HAT;—*ball*, HELL;---*HAT*, &c.

*Affinities of Letters.*

Vowels				Aspirates	Vowels		Aspirates	
	ɪ	-	-		I	Y	ch	{ of the Germans.
	Z	-	-					
	J	-	-					{ The Russians have this aspirate but no appropriated letter.
	V	-	-		L	R	*	
	Ð	-	-		Nafal	stopt		
	W	-	-		n	D	t	
	G	-	-		m	B	p	
	B	-	-		ɒ	G	k	
	D	-	-					

To render this alphabet useful, it will be proper for the teachers of Children to learn the true Pronunciation of the letters, by the preceding rules, which refer to the table of sounds, in which the common vowels are placed at the top of the seven perpendicular columns, and the remaining vowels and aspirates opposite the horizontal lines. The characters are generally at the beginning of the words, succeeded by the common vowels, except j and ɒ, which the common vowels precede. The commonest monosyllables, and words of the most simple pronunciation that contain the sounds, whether written or not, have been sought for in composing the table, to illustrate the characters, and the true mode of spelling is placed under such as are not written with a correct orthography, or that do not at present contain the written letters. When the true pronunciation of these several powers is learnt, it will be easy to teach them to children, of a moderate capacity, in a few days, and in a few weeks a child would be able to read perfectly, provided the language were correctly spelled.

The following table is intended to give a true idea of the power of each letter, by exhibiting a determinate sound to each character, in several of the most familiar examples.

Table

\* The Scotch and Irish have also this sound.



# T A B L E

(to face page 292.)

Of all the distinct sounds contained in the English Language.

	ɪ	ɪ	a	e	i	o	u	
y		yarn	yarn	yell	ye	yoke	yew	1
		yarn		yel	yi	yook	yu	
z			zag	zephyr	zeal	zone	zeugma	2
				zefar	ziil	zoon	zuugma	
s	sun	saw	sat	set	sit	sot	suup	3
	sun	saw		set	sit	sot	suup	
r	ruff	raw	rat	red	rip	rot	ruut	4
	ruff	raw		red	rip	rot	ruut	
l	lump	law	las	let	lip	log	luup	5
	lump	law		let	lip	log	luup	
j	majesty			treasure	seizure	lodge	jury	6
	madjasti			trejar	sijar	lodj	djuri	
r	fat	fat	fat	fat	fat	fat	fat	7
	fat	fat		fat	fat	fat	fat	
v	very	vant	vast	vain	victim	vote	uvula	8
	very	vant		vain	victim	vote	uvula	
f	fun	fall	fast	feem	fit	fog	fuul	9
	fun	fall		feem	fit	fog	fuul	
θ	the		that	them	this	those		10
	the		that	them	this	those		
θ	third	thaw	thank	thane	thin	thoral	thru	11
	third	thaw		thane	thin	thoral	thru	
w	—wolf, wulf;—wool, wul;—would, wuuld;—							12
o		what	while	when	which			13
		oat	oal	oen	oitr			
m	muff	mar	mas	met	mis	moor	muun	14
	muff	mar		met	mis	moor	muun	
n	nut	naught	nap	nek	nip	no	nuun	15
	nut	naught		nek	nip	no	nuun	
o	tongues		bang	length	ink	longer		16
	tongues		hap	leno	ink	longar		
g	gun	gall	gap	get	gift	go	groom	17
	gun	gall		get	gift	go	groom	
k	came	call	kaam	keem	kis	kost	cool	18
	came	call		keem	kis	kost	cool	
b	but	ball	bat	bet	bit	bot	blue	19
	but	ball		bet	bit	bot	blue	
p	puff	pull	pan	peg	pil	pot	pool	20
	puff	pull		peg	pil	pot	pool	
d	dull	doub	dark	det	dim	dot	doom	21
	dull	doub		det	dim	dot	doom	
t	ten	talk	tan	ten	tin	toon	took	22
	ten	talk		ten	tin	toon	took	
h	but	ball	hat	heet	hit	hot	hook	23
	but	ball		heet	hit	hot	hook	

As all future improvement in orthography, depends upon a perfect knowledge of the sound of every letter, it is necessary to obtain them with great precision, and to fix them in the memory; *for on remembering, and being capable of repeating with propriety, these thirty sounds, depends the whole art of reading*; which consists in reading *letters, not words*, for we only speak letters, and\* never more than one at a time; but when they are rapidly connected, the general sound of a word varies as much from another, though it possesses several of the same letters, as one word varies in appearance from another in short hand. If then we fix a certain character to each sound, there will be no more difficulty in writing with a correct orthography than in speaking with one, as we speak letters, which form words, that make sentences; and I must repeat that thus ought we, in reading sentences, to read words, by reading letters; and thus will the tongue and pen express every idea with perfect uniformity.

Some letters are formed by the glottis being more or less dilated † while the mouth serves as the chamber of sound, or body of the wind instrument; and is expanded or contracted, by its own action or that of the tongue, producing sharper or graver tones, by a wider or narrower external aperture through either the teeth or lips; others are produced by permitting the sound to escape only by the nose, the passage through the mouth being stopt by the middle of the tongue, the tip of it or the lips; and some are made by so forcible a vocal sound, as to produce tremor either in the throat or mouth. Aspirates are formed in the same manner as their vocals, with respect to position of the organs, but are produced only by the breath, whence the derivation of their name: some aspirates depend upon so violent an effort of the breath that a hissing noise is produced.

From

\* See Digraphs and diphthongs--seq :

† See the theory of language, by my worthy and very ingenious friend Doctor Beattie.

From what has been already observed, it may perhaps appear difficult, in *whispering*, to distinguish between *vowel letters aspirated* and *real aspirates*; especially, as the only distinction I pointed out, was in their being vocal or aspirated; but no difficulty arises here; for, in speaking, there is a less effort made by the breath to produce a real vocal sound than an aspirate; and in whispering there is no difference between vowel letters and their aspirates, but that the first are more slowly and faintly aspirated, while the true aspirates remain undiminished in force. The following line shews the truth of these observations.

1. ‡ "I vow, by G-d, that Jenkin is a wizzard."\*

2. Ai vou, bai G-d, ðat Djenkin iz a uizzard.

3. Aï fou, pai K-t, ðat senkin ifs a uiffart.

The 1st line is written in the common manner, the 2d is written properly, and the 3d with aspirates. If the 2d and 3d be *whispered*, no difference whatever will be found between them, except that the letters *f*, *p*, *k*, *t*, *s*, *ʃ*, *z*,--- in the third line, are pronounced much more forcibly than their correspondent vocals in the second line, when *aspirated* or *whispered*; and it is easy to distinguish which line is repeated in a whisper. The Welsh pronounce this line with aspirates instead of vowels, and produce a strange effect in speech. The lower class of the Saxons are so inattentive to the difference of the *p* and *b*, the *t* and *d*, the *f* and *v*, &c. that in English they rarely speak without misplacing them; but some go so far in error as to almost regularly put one for the other, and instead of

Boy bring both Pails to the pond,  
(Properly) Boi briŋ boø Peelz tu ðɹ pond,  
(would say,) Poi priŋ poth Beels tu dɹ Pont.

The Irish, in speaking the English language, aspirate very frequently, where there are no true aspirates; and perhaps

in

‡ Diversions of Purley.

in consequence of the Irish language abounding, like many others, in aspirates. One probable cause too of the mistakes they commit in speaking English, may be derived from the substantive being placed in the Irish *before* the adjective, not *after*, as in the more artificial language of the English.

Much has been written by many sages and learned men concerning the origin of language, which has generally been attributed to divinity, and the variety of tongues has been considered as the effect of the confusion at Babel. I will not pretend to descant on the subject, nor to deny such authority, but will humbly premise a few observations which will be sufficient to authorize a conjecture respecting the formation, and also the alterations, without the aid which is to be derived from the great lawgiver of the Jews. We know that men in different countries speak different languages.—but who does not know at the same time that the English language a few centuries ago, would not be understood now? and that if a small colony of English had been separated from the nation in general, they would have been taken for a different people? the manufacturers of England, who never go two miles from the place, for generations, cannot be understood by a Cockney. Languages differ so much in a few years, by the particular circumstances of the people, that there is no occasion for miracles to explain the varieties; and one half of our language is calculated to give ideas of arts and sciences, which have been invented during the memory of man. We have many instances of the invention of terms for new objects in the great South Sea---the Otaheiteans called a *gun*, *tik-tik-bou*! imitating thereby the cocking and report of the object; and we find among Savage nations, many things similar. The languages acquired by imitation are certainly the most natural and expressive, and I am confident that  
the

the language of man, was originally formed by imitating the objects of nature; and the names of many animals were given by imitating the voice of the individual: we find this even at present in all languages, but particularly in the less refined. Man, in a savage state, imitates birds and beasts to decoy them, and by imitation alone he forms a very extensive scale of sounds. The sounds of the *common* vowels, with *l, m, n, ð*, we hear daily among cattle and domestic beasts; the *y, z, j, v, ð*, are like the buzzing of beetles; *ç, f, s, s*, like the hissing of serpents, particularly the *s*, which might with propriety have signified the Generic name, till it became part of another appellative, and consequently a letter. In the most ancient alphabets the Phoenicians, Etruscans, Latins and Goths, adopted the form of the serpent for the character of *s*, which would have been a very expressive Hieroglyphic. The *z* of the Greeks, *as pronounced by the English*, is exactly like the forcible hissing of a goose, and is found in very few languages: the English contains so many of these buzzing and hissing sounds, that some Foreigners have called it the language of snakes.

*r* imitates the snarling of dogs, and we find nations where there are no dogs that have not the letter *r* in their languages. The aspirate of *r*\* imitates the flight of the partridge and some other birds, as well as the voice of some locusts: Gutturals imitate the croaking of frogs or toads: the stopt vocals and their aspirates are generally joined to some of the common vowels by animals: *bee*, the sheep—*bou*, the dog—*kuu*, the dove, *krook*, the raven---*kuaak*, the duck---*piu*, the buzzard---*tiu-it*, the lapwing; *kuk-ku*, the cuckoo, &c. There are also a great variety of sounds among animals, which man has had no occasion to adopt, in forming a language of his own wants, as their articulation is too difficult for com-  
mon

\* See Page 283.

mon use, and there are already more than sufficient for every useful purpose.

Indeed we find few languages which do not contain several characters that are useless, and to which the same sounds are appropriated. The English contains the following; *c* which has sometimes the power of *s*, sometimes of *k*; *q*, which has always the power of *k*; and *x*, the powers of *ks*, of *gz*, or *z*\*.

Language does not require half the number of letters made use of by any nation; because, were ten or twelve letters well arranged, they would be capable of expressing every idea we have acquired, or should be able to invent. Wachter in his *Naturæ et Scripturæ Concordia*, endeavours to show that ten letters are sufficient for a very comprehensive language. Tacquet the mathematician calculates the various combinations of the alphabet of twenty four letters to be no fewer than 620,448,401,733,239,439,360,000. Clavius however only makes them 5,852,616,738,497,664,000: they are both wrong; but the human mind cannot form an idea of such apparent infinity of combinations, nor could the inventive faculties of man exhaust them in language. Hence it does not follow that the most extensive alphabet would be required by the most copious language.

We find among some savage nations such a paucity of expression, that they cannot be said to have a more extensive language than some beasts; and upon which would philosophers reason, on the formation of language? or on the beautiful, artificial Hebrew, or the confined expressions of the most stupid of the human race? among whom a few syllables compose the whole vocabulary, and express all that

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\* Mr. Sheridan hath not only rejected the *c*, *q*, & *x*, but likewise the *j*, which he ought to have retained instead of the *ezb* taken from Wilkins, which is really not in the English language; but the *j*, as pronounced by the French, is a very common vowel, and I am the more astonished at his not adopting it, as he knew so well the power of *j*:—But his error is uniform, never having used the *j* even in the words *occasion*, *ocheejen* (occashun Sher:)—*adhesion*, *adhiijan* (adhezhun) *decision*, *explosion*, *confusion*.—Profod: gram: xlvihi.—

their appetites crave. Shew these people new objects, and they will, as every traveller evinces, form new words to express them : and, if the formation of any language can be thus proved, it is vain to look for another origin. I am also of opinion that alphabetical writing took its rise in monosyllables, to which hieroglyphicks could not be applied, and that these marks becoming the symbols of the sounds and not of the things, were regularly put for the same sounds in the composition of other abstract terms and metaphysical ideas, till the scale of marks increased, and led gradually to a mark for each sound. Some authors, whose admiration of the invention bewilders them too much to permit an examination of the principles, declare that the discovery is perfect, but they can only speak relatively ; for the alphabets of some modern languages are so much more extensive than many ancient ones, that these are very imperfect if we speak of a general alphabet for human speech, and not for particular languages. If a Chinese were to study the English, he would be easily persuaded that the alphabetical mode of writing was an invention of the English, and that it was not yet perfected, from the innumerable faults, deficiencies, superfluities, irregularities, &c. of the written language. It is so shamefully incorrect, that, when read as it is written, an Englishman *cannot understand it*\*, and a foreigner reading it becomes the object of his laughter, although, as a good scholar, he reads it perfectly, according to the orthography. I have often heard the question “do you speak French?” with the answer “no sir, but I read and write it.” The same is said of the English and some other languages ; every stranger to them lamenting, that the learned bodies of men, established in so many places for the benefit of mankind, should  
so

\* Especially if the common vowels should be read with their various powers misplaced, for there are no marks to determine them.

so long have neglected to facilitate the intercourse of nations, by rendering the mode of acquiring every language easy, which might be obtained as well by books as by travelling into the different countries where they are spoken, if those books were correct.

## SYLLABLES.

No word or syllable in the English language is formed by aspirates alone, but many syllables are formed by what some of the most ingenious call consonants, and their arguments upon them fall, because built upon false data.

Th: Sheridan says "The terminating *ble* is always accounted a syllable though in strict propriety it is not so; for, to constitute a syllable it is requisite that a vowel should be sounded in it, which is not the case here; for though there is one presented to the eye at the end, yet it is only *e* final mute, and the *bl* are taken into the articulation of the former syllable; but in pointing out the seat of the accent I shall consider it in the usual way as forming a syllable."\*

If Mr. Sheridan had considered the true power of either *b* or *l*, he would have found them both vowels, and that together they form a perfect syllable, as well as *l*, *zl*, *vl*, *ml*, *nl*, *gl*, *dl*, *fl*, *sl*, *kl*, *pl*, *tl*, *m*, *n*, *zn*, *vn*, *dn*, *sn*, *tn*, *nd*, *nt*, *snt*: If a Line of Poetry be scanned which contains any of the above *syllables*, the reader will be convinced of their being such, by the impossibility of reading them otherwise.

"A wild, where weeds and flow'rs promise'ous shoot,  
 "Or garden tempting with forbidden fruit.  
 "Together let us beat this ample field,  
 "Try what the open, what the covert yield;  
 "The latent tracts, the giddy heights explore.

\* \* \* \* \*

Pope's Essay on Man line 7th.

P p 2

Properly

\* Page xliv. Profod: Gram: (prefixed to his dictionary.)



*Properly written thus.*

A uaild, oeer uiidz and flourz promiskʒs suut,  
 Or gardn temtin uiə forbiddn fruut.  
 Togeðʒr let us biit ðis ampl fild,  
 Trai ɔnt ði ɔpm ɔnt ðʒ kovʒrt yjild;  
 ðʒ leetʒnt trakts ðʒ giddi haits ekʃploor, &c.

It is to be observed that the word *the* changes its termination *ɔ* or *ə* into *i* before words that begin with *ɔ*, *ɛ*, *a*, *e*, *o*, *u*, on account of the hiatus that must otherwise be made, to prevent it from sliding into the next sound, but this change is not made in any other instances. It is omitted totally in Poetry when the next word begins with *i*.

If only one letter divides two common vowels, the three letters form two syllables: if more than one divide them they also form two syllables only, unless two other vowels intervene, as in *ableness*, *e-bl-nes*.

Whenever two nasals, stopt vocals, or aspirates of the same power follow any of the common or other vowels, and another of these vowels succeeds, a division of the word takes place between the double letters.

The great distinction between one syllable and another is, that if the organs of speech be in their progress to the pronunciation of a letter, the voice may successively in the same flexion embrace one or two vowels, nasal, stopt vocals, or aspirates, provided these letters are such as glide smoothly, and one commences where another ends; and the falling as well as rising of that flexion may also embrace one or two more of these letters, and form only one syllable: but if the effort be interrupted by another vowel, *which gives a different flexion to the voice*, a division will take place, and another syllable be formed. Quoties vox mutatur, toties mutatur syllaba.

In dividing words, the nasals, the stopt sounds and aspirates,

rates, have such particular affinities, not only with each other, but with some of the other letters, that it is not difficult to compose syllables which contain six different letters, joined by a single common vowel only; but, as soon as the voice has glided through a certain unity of sounds, every additional change becomes another syllable. When a word, of two or three syllables, is composed of any of the stopt sounds and their aspirates, they are pronounced in the first syllable as the organs *leave* the positions used in producing these sounds, and in the second syllable they form the sounds as they *advance* to, and just before they arrive at, their true positions; the third syllable takes another flexion, and is like the first, &c. as in *gib--bak--kad--dupt*. By this, several hiatus are avoided, though the syllables divide themselves naturally, and without effort.

There appear to be laws to govern the division of words, if we examine some; for there are few nations which have adopted a particular set of letters, that would not make the same divisions if certain words were presented; again, there are words that would not warrant any such conclusion; therefore we must consider their division into syllables, arbitrary in many instances; and a multiplicity of rules would rather perplex and confound, than enlighten.

### ACCENTS,

Ought only to be placed where a stress of the voice is absolutely requisite, to denote a difference in the letter or syllable, and which would otherwise be unintelligible, or would give a disgusting tone; but if words be\* properly written

It is said, in an extract from the journals of the Royal Society, respecting a letter from a Jesuit at Pekin in China (Philosophical Transactions, Vol. 59, page 494)—that “the Chinese tongue counts but about 330 words.—From hence the Europeans conclude, that it is barren, “monotone, and hard to understand. But they ought to know that the four accents called—“*ping*, uni (*even*), *chung*, élevé (*raised*), *kiu* diminué (*lessened*), *jou*, reentrant. (*returning*), “multiply almost every word into four, by an inflexion of voice which it is as difficult to make

“a. l.

written I think they will not be deemed necessary upon many occasions ; for, where the nouns and verbs are now perfectly similar in their orthography, we shall generally find such imperfection in spelling, as, when corrected, to reduce the necessity of accents to a very few instances ; and where they appear to be requisite, the exceptions will be so easily acquired, or make such little difference in language, that they are scarcely worth attention : however, where no difference is observed in the orthography of verbs and nouns of two syllables, the stress is generally on the first syllable of the noun, and on the last of the verb ; but attention to good speakers will make more forcible impressions than any rules laid down, and were a foreigner to make no difference in uttering these particular words which grammarians think require accent, and the difference of which orthography does not point out, the defect would scarcely ever be noticed. Th: Sheridan gives many rules on accent, but they chiefly tend to point out the first, second or third power of his vowels, which in good spelling would be rendered useless. He gives us many instances of nouns and verbs which receive accents by habit only, no difference being marked either by spelling or otherwise. I will give a few, which may show that the spelling only of the words will be a sufficient distinction, without any accents being marked ; and the general rule of laying it upon the last syllable of the verb, or rather, upon the common vowel of the last syllable of the verb, and the common vowel of the first syllable of the noun, may serve.

## Nouns

“ an European comprehend, as it is for a Chinese to comprehend the six pronunciations of the French E. These accents do yet more, they give a certain harmony, and pointed cadence, to the most ordinary phrases: with regard to clearness, let fact decide. The Chinese speak as fast as we do, say more things in fewer words, and understand one another.” — From what is quoted we find that the accents multiply *almost* every word in four, but if *every* word were multiplied, there would be only 1320 which is but a small number to compound into so copious a language ; and I am certain that a person of good genius, who understands the symbols of speech perfectly, would as easily reduce the Chinese language to regular characters, as any other ; but the hieroglyphics of the language would be as unintelligible as it is at present to the generality of that nation.

Nouns	Verbs	corrected	
a or an Ac'cent	to accent'	akfnt	akfent
Cem'ent	cement'	femant	fiment
Con'cert	concert'	konfart	kānfart
Con'test	contest'	kontest	kāntest.

I had written a great number of rules on polysyllabic words, as short and simple as I thought it possible to compose them, but on reading what I had written, thought them too tedious, difficult, and liable to exception, therefore have omitted them wholly, by which I think I have not only done a justice to myself, but also a kindness to the reader.

Many words that grammarians have thought proper to accent, and for which they have given long-laboured, difficult, and complex rules, with as many exceptions, require no accent whatever; for, if they are pronounced with all the monotony and evenness of which the organs are capable, the very composition of the words, if correctly written, gives greater force to one part than to another, and it is impossible, without affectation, to pronounce them improperly, even according to the ideas of grammarians. Where the common vowels are long they ought to be written twice, as among the ancients, who wrote *amaabam*, *seedes*, &c.--The *I* instead of being written twice, was made twice as long, as in *vlvus*, *plso*, &c.--In English the \* *common* or first class of vowels are often doubled at present, when long, but not universally; and in correct writing, the accent will also be laid, where the other vowels, or the second class, and the aspirates, are double.

A dictionary alone will contain the means of correcting all uncertainties with respect to the accent, as well as orthography of words; and attention to good speakers is the only mode of correcting our ideas concerning the emphatic words of sentences.

EMPHASIS

\* Of the New Characters page 277.

## EMPHASIS

Denotes the stress of voice upon the important or illustrative words of a sentence, or upon a sentence in a discourse, but is no further connected with my subject, than by the distinctions which we ought to adopt in writing, and the following are what I would chiefly recommend. Let emphatic words and the name of either person or place, begin with a large letter, words of greater import be in italics, and the whole word occasionally be a size larger than the common text; if of great importance let this commence with a still larger letter. Emphatic sentences may be distinguished by italics or a larger type—In *writing*, words and sentences may have one, two or three lines drawn under them. or writ in a larger hand, or both, according to the force of the intended expression.—The custom of writing all nouns with capitals ought to be disused, as few of the *best* grammarians understand that nouns, verbs, and abbreviatives, compose the whole of language.\*

Much has been written by some ingenious men on

## DIGRAPHS AND DIPHTHONGS,

But if they had spent half as much time in *correcting* written language, as they have bestowed in forming general rules, with such a number of exceptions, to bring the *errors* of written language into order, it would have much facilitated our learning; for really a *language* is almost as easily learnt, as the *rules* by which it is at present taught. The appropriation of a separate character to every sound, will utterly destroy the idea of digraphs in correct writing; and as for diphthongs *they never existed in any language* :—they are said, by Th: Sheridan, to be “a coalition of two vowels to form one sound—and triphthongs three”—but the same organs that are employed to form one sound  
cannot

\* See the ΕΠΙΕΛ ΠΤΕΡΟΕΝΤΑ of John Horne Tooke.

cannot be engaged to form another at the same instant.— It would be as difficult to allow this, as to admit that two atoms can occupy the same space. No complex sounds can be produced even on instruments, any more than complex ideas by the mind —When several instruments play a note, the ear either hears one sound or more; if only one it is a simple sound, if more than one, they cannot be called a sound, simple or complex, but distinct sounds. It is impossible for the mind to form a complex idea: there may be a rapid succession of ideas, but that several ideas can be reduced into one is an absurdity. The Mexicans, according to Clavigero, compounded sometimes one word of the initials or first syllables of a great number of other words, which term became very long, and comprehended a whole sentence; but this *abbreviated sentence* gives no *complex idea*, it only gives a more rapid succession of ideas than a sentence composed of long words. If a new sound interpose two others in speech, a new character ought to be made; if it do not, we ought to consider whether or not it is a sound rapidly succeeding another, and the two or three mistaken for one only: of this class many are to be found, particularly in very ancient languages, and some in the best written modern.

The celebrated Euler, attempts very ingeniously to prove, that a mixed sound may be formed of two different sounds, by striking two strings together, and next to each other, of different tone, which will prevent either of them from its natural vibration; that a note will be produced partaking of each, and that if one of the strings be stopt, the vibrations of the other, will remain as a mixed sound, for some moments, after which it will gradually recover its natural vibrations, and give its natural sound. But the truth is, that the agitation of the air occasioned by the first, within the verge of the second, continues a few

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Q q

moments

moments to mix with the agitations of the air made by this second, and the mixed sound dies as the first ceases: the mixed vibrations occasioned by the continuance of both strings, will be as much a compound sound as if one of the strings were to be stopt; but this sound, though different from the two others, becomes a distinct and simple sound, as much as purple, produced by a mixture of blue and red, becomes a distinct colour. If however I wave all this and admit that a diphthong can be produced by *two* persons sounding *two* different vowels, at the same time, as the derivation of the word literally imports, it does not thence follow that I shall grant a diphthong can *possibly* be made by the same person.

### *In Composing*

Either poetry or prose, attention is paid to the facility of uttering whatever is written, but without knowing that the sounds depend upon certain letters which glide smoothly after each other; for there are some that cannot be read after particular sounds without difficulty. The poet is directed by the ear, for the words are generally composed of such clashing materials, that if they were read as they appear the melody would be entirely defeated; and if rhyme be examined, we shall find, provided the words be properly spelled, exactly as much resemblance in the appearance as in the sound.

Poetry requires a certain number of syllables or variety in the voice consonant with the time required in music, and not only seeks, when the subject demands, the most euphonical and flowing words, but those whose divisions and emphases correspond with each other, and with the general tenor of the subject, whether quick or slow, soft and captivating—flowry and enchanting—sonorous and  
elevating

elevating—or rough and terrific. Such words ought also to be chosen as when repeated necessarily produce in the features the passions dictated by the theme, and the hearer should be led along by its variety. As all words are not, in certain situations, calculated for particular species of poetry, authors have taken many liberties, and have changed, not only the measure of the word but sometimes its accent. Poetry has thus tended, in the opinion of some, to correct the emphasis, and is thought in all languages, particularly the dead ones, to preserve a knowledge of the true sound of words.

It is, by no means, my intention to dwell upon these subjects, some of which would require distinct treatises, and the world hath already been favoured with several, by many ingenious men, (Thomas Sheridan, Noah Webster, &c.) but I was obliged to pursue particular ideas into those devious paths. I must now say a few words on the *Hieroglyphicks of writing*, among which I cannot but rank what are (improperly) called the *stops* [and ought rather to be termed *symbols of variation in speech*\*] as well as the † Arabic numerals, chemical characters, and astronomical signs, &c.

### *Stops.*

Many Chinese words have different meanings according to their different ‡ tones; and some of our stops

Q q 2

which

\* As letters denote the component parts of words, the *ACOPHASIS* or *ACOPHONIKS* denote the pitch or key and tone of the letter, word, or sentence; the flexions, force, and various meanings which are to be derived from cadence; and are to the letters in reading what the flats, sharps, rests, &c. are to the notes in music.

† Edward Gibbon observes (in his History of the decline and fall of the Roman Empire, Vol. v. page 321.) that “under the reign of the Caliph Waled, the Greek language and characters were excluded from the accounts of the public revenue. If this change was productive of the invention or familiar use of our present numerals, the Arabic characters or cyphers, as they are commonly styled, a regulation of office has promoted the most important discoveries of arithmetic, algebra, and the mathematical sciences.”

“According to a new, though probable notion, maintained by M. de Villoison (*Anecdota Græca*, tom: ii: pag. 152, 157.) our cyphers are not of Indian or Arabic invention. They were used by the Greek and Latin arithmeticians long before the age of Boethius. After the extinction of science in the west, they were adopted in the Arabic versions from the original M. S. S. and restored to the Latins about the XI. century.”

‡ See note page 301.



which seem calculated to command time, give a different tone to the voice; the notes of interrogation and exclamation are of such importance as to give a different meaning to the sentence; the Spaniards invert them before, as well as place them after the sentence in their correct editions, and that rule ought to be adopted in all writings, otherwise it is impossible to read them properly the first time? who would think of marking a sentence in *parenthese* with only one mark of a parenthesis? or a sentence of exposition by only one crotchet, or mark of a parathesis? and it is as necessary to adopt the Spanish mode in writing the Erotesis;—? and Ecphonesis!—; A mark of Irony should be invented, for its use must be acknowledged, by those who are acquainted with language; and it should, like all the rest, be placed before and after the sentence--- (+) this mark may serve. A character to signify the *depression of the voice* in sentences spoken aside, as in plays, dialogues, &c. ought also to be made to include the sentence; and not write the word (*aside*) at the end as is now done. At present a person reads a long sentence aloud, and stopping short at the end with surprise—he whispers ‘*this is aside*’. This mark { - - } will answer, and may be called a Kaluptophasis. Quotation may be represented at present by two inverted commas “——” and the speech of any character in an author by one ‘——,’ which mark may be denominated a Profepopeia.

Erotesis— <i>Erootesis</i> —Note of interrogation	¡—?
Ecphonesis, <i>Ekfoonesis</i> —note of admiration or exclamation,	i—!
Parenthesis— <i>Parænesis</i> ,	(—)
Crotchet— <i>Krotchet</i> or Parathesis— <i>Paraðesis</i> ,	[—]
Quotation— <i>Kuoteefan</i> ,	“——”

Profepopeia

Prosepopeia--action of making a speech for another,	-	-	-	-	-	'—'
Accent-- <i>Akſnt</i> ,	-	-	-	-	-	'
Hyphen-- <i>Haifen</i> ,	-	-	-	-	-	-
Syntheſis-- <i>Sinæſis</i>	-	-	-	-	-	=
Comma-- <i>Komma</i> ,	-	-	-	-	-	,
Semicolon-- <i>Semikolon</i> ,	-	-	-	-	-	;
Colon-- <i>Kolon</i> ,	-	-	-	-	-	:
Period-- <i>Piiriod</i> --full ſtop or punctum,	-	-	-	-	-	.
Apoſtrophe-- <i>Apoſtrophe</i> or mark of eliſion,	-	-	-	-	-	'
Caret - - wanting,	-	-	-	-	-	-
Aſterisks,	-	-	-	-	*	* * *
Hiatus,	-	-	-	-	-	—
Zugoma--BRACE or tie,	-	-	-	-	-	{—}
Irony-- <i>Aironi</i> ,	-	-	-	-	-	+—+
Kaluptophaſis-- <i>Kaluptoſaſis</i> --to be ſpoken aſide,	-	-	-	-	-	{--}
Emphaſis, <i>Emfaſis</i> . Expreſſed in writing by one or two lines, under the word or ſentence---in printing, by italics or large letters.	-	-	-	-	-	-

References may be made by figures, different alphabets, or arbitrary marks of any ſort, that do not interfere with thoſe that may be adopted in general, as agophonicks.

By ſome it has been thought neceſſary to appropriate ſymbols to the paſſions and geſtures. But the difference of characters and actions in men, would render ſuch an attempt leſs uſeful than might at firſt be ſuppoſed; the geſtures that are natural in one caſe, would be buffoonery in another, and it would be as difficult to reconcile opinions in this reſpect, as to join a Harlequin to a Burgomaſter.

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*On teaching the SURD, or DEAF and consequently DUMB,  
to Speak.*

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**T**HE difficulties under which those have laboured, who have attempted to teach the furd, and consequently dumb to speak, have prevented many from engaging in a labour that can scarcely be exceeded in utility ; for some of those to whom nature has denied particular faculties have in other respects been the boast of the human species; and whoever supplies the defects of formation, and gives to man the means of surmounting natural impediments, must be considered as a benefactor. There have been many successful attempts, in divers nations, to procure to the deaf and dumb the modes of acquiring and communicating ideas.—The methods however are slow and imperfect.—The written and spoken languages are so different, that they become to such pupils two distinct studies. It is necessary that they acquire a knowledge of objects, by seeing their use, that they also become acquainted with the several words which when written become the representatives of these objects, and besides the difficulties which present themselves in pronunciation, they are to remember that the different words which are written, and sometimes with nearly the same letters, are of different signification; and in speaking require different pronunciations of the same character—this is an obstacle that cannot be possibly avoided by the present mode of writing, and the languages become as difficult as Hieroglyphics.

Some of the difficulties of acquiring a language when deaf, may be conceived by those that are experienced in learning foreign tongues, where they are not commonly spoken, although aided by translations and dictionaries;  
but

but the man that hears nothing, has not the advantage of a child who learns by the constant chat of his parents and attendants, and who can obtain no pleasures but through the medium of speech—he hears and is constantly learning—to teach him is the amusement of every one; but the deaf receives his stated lessons, difficultly and seldom.—There is no book which by the figures or drawings of things have appropriate terms, nor is there a language which has appropriate characters.—The more I revolve in my mind this subject, the more I am astonished that even the most improved nations have neglected so important a matter as that of correcting their language; I know of none, not even the \* Italian, that is not replete with absurdity; and I shall endeavour to shew the facility with which the deaf might be taught to speak, if proper attention were once paid to this important point.

I have attempted to shew that in the English language there are thirty characters, and must suppose a † dictionary according to this scheme of the alphabet, upon which I mean to build

*the Method of teaching the Surd and consequently  
Dumb to speak.*

It is necessary to examine first, whether the dumbness be occasioned by merely the want of hearing, or by mal-conformation of the organs of speech. If the latter there is

\* “Ciascheduno fa, che, come, non v'è cosa, che più dispiaccia a Dio, che l'ingratitude, ed inosservanza de' suoi precetti; così non v'è niente che cagioni maggiormente la desolazione dell' universo, che la cecità, e la superbia degli uomini, la pazzia de' Gentili, l'ignoranza, e l'ostinazione de' Giudei, e Scismatici.”

Corrected.

*Tiascheduno fa, ke kome, non v'è cosa, ke piu dispiaccia a Dio, ke l'ingratitude ed inosservanza de' suoi preetetti; cossi non v'è niente ke kadjioni madjormennte la desolafione dell' universo, ke la steslita, e la superbia del\* i emini, la patzia de' Djentili, l'intorantia, e l'ostinatfione de Djudeci, e fizamitilgi.*

† Mr. Sheridan's or Dr. Kenrick's may give some aid, till a dictionary be published upon this plan.

\* Requires a new character (the aspirate of I)

is no occasion to proceed, but if the former be the cause, the method of attempting to remove such an impediment may be pursued in the following manner.

1st, They must be led, if young, to attempt to pronounce, by imitating the motions of children in speaking, and, as every thing at first would appear to them unmeaning, a child who can speak must be told to pronounce the letters, which you desire the deaf child to learn. If you succeed with difficulty, to prevent discouraging the deaf, the child who speaks must be made to pronounce slowly, distinctly, and with many repetitions, that the deaf may suppose the other to be in the same predicament; but if you have two deaf persons to teach at once, the first lessons only need be given in this manner, for the progress of both will be at first perhaps much alike.

2dly. The pupil must be not only sensible when he makes the proper sound himself, but must also be able to distinguish these sounds in others. In teaching to pronounce, you must open the mouth, and shew the situation of your tongue as nearly as you can, then dispose your lips in such a manner as to give the sound, making apparently a more forcible exertion than common. The pupil will try to imitate it. He will make no doubt a sound of some sort, either vocal or aspirate—If that sound be contained in the language you mean to teach him, point immediately to the letter which you find is the symbol, and repeat it so often, that he can neither forget it, nor have any idea of the symbol without that sound, nor of the sound without the symbol---If the sound be vocal let him feel at his own throat, and at yours, that he may be made sensible by the external touch that the sounds are the same, and he will with more facility be enabled to give the aspirates by pronouncing them without a tremulous motion in the throat, which is the sole external mode of learning him the difference.

ference. When you teach the aspirate of any letter by a simple breathing, the organs being somewhat similarly disposed, he perhaps may stumble upon another vocal or aspirate: if so, shew him the letter he obtains by the error, as if you had no intention, in that instance, to teach the letter in affinity with the last; and let him repeat the sound, whether vocal or aspirate, till he is perfectly acquainted with it, and the appropriated character. You must then turn to another, taking care, that while he acquires, he does not forget, and let him often repeat them. When you have proceeded through the greatest part of the letters in this manner, and find that either the vowels or aspirates which correspond to each other are wanted, you must take such as it would be proper to begin with, and I think that none would serve better than v—f; j—[; z—s; ð—s; in which, if the pupil be sensible, he will soon discover a connection, and will be induced to search for the same affinities in the other letters, whether the language he learns contains them or not—It will be necessary, according to the age and disposition of the pupil, to use different methods of disposing his organs; not only by letting him feel, how your tongue is raised to the roof of your mouth, pushed forward, depressed, withdrawn, &c. but also to dispose his, by your fingers, and have a looking glass always present, to shew him wherein he errs in not justly imitating you; and also to let him see when he is right in his efforts. This will teach him what is necessary

3dly, To know what others say, when they converse with, or ask him any question. This is the most difficult in teaching the surd, because most of the letters are formed in the mouth and throat, out of sight; and here vision alone obtains the meaning. The mirror, however, will facilitate much the mode of learning what others say, by the

VOL. III. R r deaf

deaf man's conversing with himself before it, but in presence of his teacher, to prevent his making mistakes, in the formation of the true sounds: and there are more guides in acquiring what words are spoken by others, than people in general imagine; for so many of the letters which make a visible effect upon the organs, in their formation, enter into the composition of words, which may indeed contain many that do not make much effect, that if all the former were written down, it would give to the eye, a kind of short-hand; and is almost as easily caught by the watchful eye of the attentive deaf, as short-hand without vowels is read by the experienced stenographer. Both arts require long practice, but both are very attainable.

When he has learned the true \* sounds of the thirty letters, in the English language, he will be capable of reading as well as of speaking, and he ought to have a catalogue of objects, designed or represented, that he may affix proper ideas to proper terms.—Thus a child may be taught to read, to speak, to understand others, to write, and obtain a knowledge of things at the same time.

The greatest difficulty that the deaf have to surmount, in making a quick progress, in general conversation, has been the want of a proper dictionary, or, rather, of a properly written language; for if they pronounce the letters well, and attempt to join them, so as to read words as they are now written, it would be unintelligible.—The dictionaries of Dr. Kenrick and Mr. Sheridan, would very much assist at present, for the deaf should have an opportunity of acquiring the sounds of words, whenever they were disposed to learn, without being obliged to have recourse to others: but there are many defects, as well as mistakes, in Mr. Sheridan's, and though I have not seen Dr. Kenrick's, I know the manner, and it must also be defective,

\* See the preceding dissertation Page 280 et seq:—also the table of sounds.

fective, because in neither work, have letters been invented for the sounds not before represented.---If the dumb had the advantage of learning a language properly spelled, every time they read in a book, the sounds would be impressed upon the mind, and reading would offer an eternal source of improvement, both in correct speaking, and in matter; and thus might a person, who had once learned his letters, be capable of reading every thing correctly, and a child would not have to learn a language in merely learning to read; thirty sounds only would be required, and he would have no idea of the possibility of substituting a wrong letter in writing, for one which he could properly pronounce; thus, spelling would not be a study in writing. I speak now, not only in favour of the deaf and consequently dumb, but of all others, who have not yet learned to read. Some of these ideas I have often repeated, but repetition is admissible, when we consider with how much difficulty truth is made to grow in a soil where prejudice has permitted error to take deep root.

Many of the dumb learn to communicate by their fingers, forming an alphabet, by pointing at each finger, by shutting them separately, by laying various numbers of fingers upon the other hand, first on one side, then on the other, and by different signs, passing through the whole scale of sounds---and composing words by visible motions, which are agreed upon by a friend. They also write, and learn the meaning of things, by referring to the representatives of words instead of the words themselves, and the meaning of things would be as easily taught by this mode as by the ear, provided there were as much repetition in one case as in the other.

It is necessary, that the dumb have each a book, in which should be written under proper heads, the names of familiar objects, and under them those things which have a connection, beginning with genera, and descending to species.



It would be proper to have large tables of classes, in the following manner, which would occupy the side of a room.

# ANIMALS

Mankind	Beasts	Birds	Fishes	Rept: Insects, Amphib:
Man, woman child,	Carnivorous Lion Tiger, &c. Horse Horse, Mare Foal Bull, Cow, Sheep, &c. Calf Lamb	Graminivorous Horse Horned Cattle water fowl Birds of Sea, fresh water prey, &c.		

# VEGETABLES

Trees	Shrubs	Plants

# MINERALS

Platina	Gold	Silver	Copper	Tin	Lead	&c.

# STONES

Diamond	Sapphire	Ruby,	Topaz	Emerald &c.	Flint	Calcareous, &c.

# EARTHS

Vegetable	Others or Calces	Clays	Marles	&c.

As the pupil will be taught to read, to speak, to write and understand things at once, the teacher should force him to leave no name unpronounced, unwritten, or unread; and the pupil should be, at the same time, taught to observe the motions made by the organs of speech in his preceptor, and likewise to examine his own in a glass, and to draw the object, which may be done in a book either arranged according to the use of the thing, or put promiscuously with its name written under; and if the word be incorrectly spelled, to write it properly besides, or look in one of the corrected dictionaries. All these methods will impress his mind so strongly, that he will seldom have occasion to refer to his book; and by this method he will also attain to a great proficiency in drawing.

The actions and passions should be acted to the pupil, and no movement made without shewing its meaning, and noting it down by writing, that words may increase in exact proportion to the increase of knowledge, and the progress which a student will make by this method will in a short time be astonishing.

If a teacher were to undertake the instruction of several at once, which would indeed be most adviseable, it would be exceedingly proper to procure as many prints or drawings of common objects as could be had, and even of the same objects in different postures and positions, with the name and action written beneath, and these arranged under different heads according to their relation to each other. The walls of the room might be covered with them, screens, port-folios and books also contain others, to which they might constantly have access. Colours ought also to be painted in squares, with their names attached, after them the shades and the various colours obtained by mixing simple bodies. They ought also to go through various courses of natural history, natural and experimental

perimental philosophy, including chemistry, by which they will see the extensive variety that even artificial mixtures and combinations of bodies will produce. The names, the processes, and results should be written, that nothing be lost. Space and time should be measured, and all the parts of discourse made familiar by examples, as a sensible man would see occasion.

The utility of attempting to teach the dumb to speak, has indeed been disputed by many, not only on account of the difficulties which are judged insurmountable, the imperfect manner in which the pupils articulate, and the disagreeable noise they make in endeavouring to pronounce, but also on account of the difficulty with which they understand what others say, and more especially when they can be comprehended so well by writing, and made useful members of society by drawing.—The imperfect manner in which they speak depends not upon the pupil, if of common capacity, but upon the teacher; and I am confident, from short trials I have made, that the art is to be perfectly obtained by the foregoing method. The difficulty of understanding what others say I have already considered (page 313 art. 3d) and though writing is a very necessary qualification, yet pen and paper are not always at hand. Drawing I approve of, as useful to every one, and perhaps more particularly so to a person whose want of natural faculties deprives him of many sources of amusement. But speech is so useful upon every occasion, that to attain it is to facilitate the very means of existence: for if a deaf man was even always provided with a book and pencil he would often meet with persons who could not read, and one sentence if only imperfectly spoken would convey more meaning than all the gestures and signs which would be made.

A deaf

A deaf person not perfectly skilled in reading words from the lips, or who should ask any thing in the dark would be able to procure common information by putting various questions, and by telling the person that, as he is deaf, he requests answers by signs, which he will direct him to change according to circumstances.—If he had lost his way, if he enquired for any one, if he wanted to purchase any thing, and in all the common occurrences of life, his speech would be so useful, that it would certainly more than repay the trouble of obtaining it; especially as it would be a mode of facilitating every other acquirement.

WILLIAM THORNTON.

Nº. XXXIV.

*Observations on the Theory of Water-Mills, (continued from page 193) by W. WARING.*

Read, April  
5th 1793.

SINCE the Philosophical Society were pleased to favour my crude observations on the theory of mills with a publication in their transactions, I am apprehensive some part thereof may probably be misapplied.

It being therein demonstrated, that, “the force of an invariable stream impinging against a mill-wheel in motion is in the simple direct ratio of the relative velocity,” some may suppose, that the effect produced, should be in the same proportion, and either fall into an error, or, finding by experiment, the effect to be as the square of the velocity, conclude the new theory, to be not well founded; therefore, I wish there had been a little added to prevent such a misapplication, before the society had been troubled with the reading of my paper on that subject; perhaps, something like the following.

The